

THE MEASUREMENT OF DAMAGES: AN ECONOMIST'S VIEW†

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Successful completion of a plaintiff's case for damages includes both proof of the wrongful act and proof of the money amount of damages.¹ Failure to prove amount prevents recovery. Although proof of amount has less rigid legal standards than proof of wrongful act, it still must be proved, not merely alleged or argued.² Proof depends upon economic data, and proof sometimes fails because of the inadequacy of such data.³

The Philosophy of Market Value (or Price)

Damages are measured in judicial law by a process utilizing the economist's concept of "market value."⁴ Where a reasonably clear market value cannot be ascertained, various substitutes or surrogates are used, such as reproduction cost,⁵ reasonable or actual value to owner,⁶ before and after value of assets,⁷ comparable value of other assets⁸ and others. They are accepted as measures because they are the nearest to market price which can be obtained with the data and under the circumstances.

Judicial law uses "market price" or "market value" in damage determination because it is the sole rational means of attaining the optimum use of resources.⁹ Optimum is used here to mean the maximization of human satisfactions,¹⁰ an economic dimension of the liberal humanist goal of "the greatest happiness for the greatest numbers."¹¹ Judicial law uses

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¹ *Wise v. Western Union Telegraph Co.*, 37 Del. 209, 181 A. 302 (1935); *Mayor, Alderman & Commonality of the City of New York v. Ransom*, 64 U.S. (23 How.) 487 (1859).

² *Anderson v. Mt. Clemens Pottery Co.*, 328 U.S. 680 (1946); *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946).

³ Proof of amount in cases of wrongful death has been covered in Leonard, *Future Economic Value in Wrongful Death Litigation*, 30 OHIO ST. L.J. 502 (1969).

⁴ *Hedderman v. Robert Hall of Waterbury, Inc.*, 145 Conn. 410, 144 A.2d 60 (1958); *Covey v. Western Tank Lines, Inc.*, 36 Wash. 2d 381, 218 P.2d 322 (1950).

⁵ *Ford Motor Co. v. Bradley Transp. Co.*, 174 F.2d 192 (6th Cir. 1949).

⁶ *Lobell v. Paleg*, 154 N.Y.S.2d 709 (N.Y. City Mun. Ct. 1956).

⁷ *Bigelow v. RKO Radio Pictures, Inc.* 327 U.S. 251 (1946).

⁸ *Id.*

⁹ Even economies bases on central planning often seek and use this concept of value in determining resource allocation. See O. LANGE, ON THE ECONOMIC THEORY OF SOCIALISM, (1948).

¹⁰ See W. STARK, JEREMY BENTHAM'S ECONOMIC WRITINGS (published for the Royal Economic Society by Allen and Unwin, London, 1952-54).

¹¹ From Francis Hutcheson, *Inquiry Concerning Moral Good and Evil*, 1720. See W. R. SCOTT, FRANCIS HUTCHESON, HIS LIFE, TEACHING, AND POSITION IN THE HISTORY OF PHILOSOPHY (1966).

market price because its task is to make the aggrieved whole, that is, it attempts to place him where he would have been in a free market, *instead* of where he is as a result of a wrongful act. The money amount of damages is the difference between a free market price and a price attained under conditions flowing from the wrongful act.

A philosophical defense of market price is its capacity to equate the displeasure of work with the pleasure of use of that produced. Alfred Marshall, one of the greatest economists, has written:

The simplest case of balance or equilibrium between desire and effort is found when a person satisfies one of his wants by his own direct work. When a boy picks blackberries for his own eating, the action of picking is probably itself pleasurable for a while; and for some time longer the pleasure of eating is more than enough to repay the trouble of picking. But after he has eaten a good deal, the desire for more diminishes; while the task of picking begins to cause weariness, which may indeed be a feeling of monotony rather than of fatigue. Equilibrium is reached when at last his eagerness to play and his disinclination for the work of picking counterbalance the desire for eating. The satisfaction which he can get from picking fruit has arrived at its maximum: for up to that time every fresh picking has added more to his pleasure than it has taken away; and after that time any further picking would take away from his pleasure more than it would add.¹²

The comparison of work to produce with satisfaction in use is not ordinarily as direct and immediate as with the blackberry picker. But money costs are related to the pain cost of production and sales price to the satisfactions of use. To the extent that money reflects psychic values, market price is the optimum price. As with the berry picker, as each product adds more pleasure than is taken away by costs of producing it, then production continues. When additional output would cause more displeasure than pleasure, then production ceases. In this way the price mechanism establishes a market price which maximizes human satisfaction, and moves toward the greatest good of the greatest number. This is the normative judgment of our political and economic society. The judicial quest for a formula for damages based on market price is an inextricable part of a liberal society.

Characteristics of a Free Market

If judicial law is to approximate the result that would be attained in a free market, jurists must recognize certain essential characteristics of such a market.

A free competitive market is a geographical area in which large numbers of buyers and sellers (with buyers under no compulsion to buy or

¹² A. MARSHALL, PRINCIPLES OF ECONOMICS, 331 (8th ed. 1920) [hereinafter cited as MARSHALL].

sellers to sell) meet to establish a price for homogeneous items which clears the market. The market concept is instantaneous in time and is at a specific geographic location.^{13 14} "Thus the more perfect a market is, the stronger is the tendency for the same price to be paid for the same thing at the same time in all parts of the market. . . ."¹⁵ If the same price does prevail then judicial law can simply use the publicly quoted price.

Now suppose the court must decide value (market price) for an asset where no transactions took place on the crucial date. Or suppose the court must decide the value where the item to be valued has changed over time. (For example: What is value of a closely-held corporation on July 20, 1970, where there was a significant change in management on July 19, 1970?) Or suppose the asset to be valued has disappeared before the valuation is made? (For example: Valuation of a corporation *destroyed* by an anti-trust violation.) Or suppose there are many prospective buyers but a single seller? (For example: A rare stamp.) Or suppose there are many prospective sellers but a single buyer? (For example: Labor being supplied in a small town to the sole manufacturing enterprise). Sometimes the difficulty is time, sometimes place, sometimes the nature of markets, sometimes the changes in the item being valued. In these cases there is no "market price," and courts must use substitutes based on partial information and analyses.

Some Partial Views of Market Price

What is a reasonable market value where there is no market? The judicial formulas of 1) before and after, 2) comparability, and 3) prices for specific losses (customers, assets, etc.) are obviously partial answers. They are partial because each corrects only one item on which the data for market determination is deficient. "Before and after" attempts to correct for no sale on the relevant date. "Comparability" attempts to use another item (firm, asset) as a yardstick. Prices for specific losses (customers, assets, etc.) apply only those items mentioned, without measurement of the effect of those items on the overall position of the firm. If *partials* are all that is available, they must be used, but the concept of the whole free market should remain the ideal. Judicial determination of the amount of damages should push as far as possible toward the wholeness of the free market by combining as many *partials* as available, and adding the professional judgment of an appropriately chosen expert economist.

¹³ There are of course markets for "future delivery," but the price is instantaneous in time.

¹⁴ The geographic area may be small, as in a single room, or large as where stocks are traded over-the-counter by buyers and sellers brought together by telephone communication. In either case there is a market because of the coming together of offers to buy and sell at a definable time and place.

¹⁵ MARSHALL, *supra* note 12, at 325.

Historical, or "Before and After" Net Earnings

A substantial number of cases use an historical approach to damages, sometimes referred to as the "before and after" formula. This formula has the implicit assumption that a reasonable substitute market price can be determined if the "time difficulty" is removed. Thus the value of a firm or other asset can be measured before and after a wrongful act and the damages measured by the difference. This method is widely used in anti-trust cases.¹⁶

Even so simple (simple, not easy) a method has its problems. The courts have used before and after dates to mean: filing date,¹⁷ date of decree,¹⁸ a future or prospective date,¹⁹ "normal" immediately prior,²⁰ and damage period.²¹ The appropriate date should depend on judgment and on circumstances, especially the availability of data.

Net earnings, or net profit lost is the preferred measure under the before and after formula.²² But many other measures (partials) have been permitted, including reduced price per unit times number of units,²³ the drop in price after the indictment,²⁴ and the trend of profits including future profits.²⁵ They are all used as means of reasonably approximating net profit lost.

Comparable Business as Measure of Market Value

Where it is impossible to obtain sufficient reliable information on net earnings for the wronged firm, the amount of damages may be proved by use of a "comparable firm." The firm used should have essential characteristics as near as possible to the wronged firm. These essential characteristics may include size, industry, time period, nature of markets and

¹⁶ *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946); *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555 (1931); *Eastman Kodak Co. v. Southern Photo Materials Co.*, 273 U.S. 359 (1927).

¹⁷ *Volasco Prod. Co. v. Lloyd A. Fry Roofing Co.*, 308 F.2d 383 (6th Cir. 1962).

¹⁸ *Herman Schwabe, Inc. v. United Shoe Machinery Corp.*, 297 F.2d 906 (2d Cir.), *cert. denied*, 369 U.S. 865 (1962).

¹⁹ *Anvil Mining Co. v. Humble*, 153 U.S. 540 (1894).

²⁰ *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946).

²¹ *Sablosky v. Paramount Film Distrib. Corp.*, 137 F. Supp. 929 (E.D. Pa. 1955).

²² *Momand v. Universal Film Exchs., Inc.*, 172 F.2d 37 (1st Cir. 1948). This case used another standard in addition. Also *Bigelow v. RKO Radio Pictures, Inc.* 327 U.S. 251 (1946). This case uses differences in film rentals as the only cost which changed in the before and after comparison. This case also uses another standard in addition. In *Eastman Kodak Co. v. Southern Photo Materials Co.*, 273 U.S. 359 (1927), the court approved gross profits minus cost of handling additional goods. The courts have rejected "partials" for net earnings where the evidence was not convincing.

²³ *Dean Foods Co. v. Albrecht Dairy Co.*, 396 F.2d 652 (8th Cir. 1968).

²⁴ *Ohio Valley Elec. Co. v. General Elec. Co.*, 244 F. Supp. 914, (S.D. N.Y. 1963); and *Philadelphia Elec. Co. v. Westinghouse Elec. Corp.*, 308 F.2d 856 (3rd Cir. 1962).

²⁵ *William H. Rankin Co. v. Associated Bill Posters*, 42 F.2d 152 (2d Cir. 1930).

input conditions, etc. The studied firm becomes the substitute for the aggrieved firm, and its net earnings are ascribed to the wronged firm.²⁶

Measurement of Damages by Special Items

Measurement of damages is sometimes as simple as computing difference between legal (market) price and wrongful price and multiplying by number of units sold.²⁷ The courts do not ordinarily attempt to measure the impact on price of the changed quantity purchased.²⁸ Sometimes the measure is lost profit per unit times number of units,²⁹ (number of units supplied, rather than those contracted for).³⁰ Finally, the courts have been known to accept "receipts before and after" where respondent prevented better data being obtained. "[J]uries are allowed to act on probable and inferential, as well as upon direct and positive proof."³¹

Market Value Decisions of the Securities and Exchange Commission

The measurement of market value is also carried on by the Securities and Exchange Commission and by other quasi-judicial institutions.³² In each of these bodies there arises a series of precedents which give some guidance on determining market value. Although differing in detail from other bodies, the Securities and Exchange Commission experience is useful and relevant.³³

The Securities and Exchange Commission, acting in more than 1,000 individual cases, has in effect rejected a formula approach and sustained the ideas of inclusiveness, perception of important distinctions, and reasonableness. Stated differently, it has adopted a philosophy of wholeness,

²⁶ Use of this yearstick is approved in *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946), where a competing firm was used. Where there is no comparable firm in the geographic area, a nearby city may be used. *Elyria-Lorain Broadcasting Co. v. Lorain Journal Co.*, 358 F.2d 790 (6th Cir. 1966). Where size is the only impediment to comparability, a larger firm may be used and made comparable to the smaller by dividing appropriate amounts. *Karseal Corp. v. Richfield Oil Corp.*, 211 F.2d 358 (9th Cir. 1955). Where there is a bilateral monopoly (a single supplier dealing with a single buyer) the measure of plaintiff's loss may be the defendant's gain. *Union Carbide & Carbon Corp. v. Nisley* (10th Cir. 1961). In some circumstances, comparability is accepted as between a single enterprise and a chain, in spite of many other differences. *Goldman Theaters v. Loew's Inc.*, 69 F. Supp. 103 (E.D. Pa. 1946), 164 F.2d 1021 (3d Cir.), *cert. denied*, 334 U.S. 811 (1948).

²⁷ *City of Atlanta v. Chattanooga Foundry & Pipe Works*, 127 F. 23 (6th Cir. 1903).

²⁸ *North Texas Producers Association v. Young*, 308 F.2d 235 (5th Cir. 1962).

²⁹ *Clapper v. Original Tractor Cab Co.*, 270 F.2d 616 (7th Cir. 1959), *cert. denied*; 361 U.S. 967 (1960).

³⁰ *Guerini Stone Co. v. P. J. Carlin Constr. Co.*, 240 U.S. 264 (1916).

³¹ *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251, 264 (1946).

³² For example: The Federal Power Commission and Interstate Commerce Commission.

³³ BOSLAND, C., *VALUATION THEORIES AND DECISIONS OF THE SECURITIES AND EXCHANGE COMMISSION*, Simmons-Boardman Publishing Co., (1964). This is the major source for the S.E.C. section.

but has accepted possible and reasonable partials as a sufficient substitute for the unattainable whole.

The sole *requirement* in determining value is that it must be based on *earning power*, or where available, on actual market quotations or transactions. The Commission may consider book value, capital structure, excess working capital, dividends, cash flows, liquidating value, cash position, good will and others. These are accepted because they shed some light and help build a broad perspective.

How are earnings best measured? The Commission has shown a preference for recent or prospective earnings and earnings trends rather than a long earnings history.

After earnings have been determined, the next step is to multiply earnings by a reasonable and proper rate of capitalization to obtain reasonable market value. Earnings multiplied by the rate of capitalization equals market value. The same conclusion may be obtained by using a reasonable rate of return for a firm of that kind, in that industry, at that particular time. Suppose $8\frac{1}{2}\%$ is chosen. Divide 100 by $8\frac{1}{2}\%$ and the result is the rate of capitalization. Still another way of expressing the same idea is the price/earnings ratio. The ratio is obtained by studying the most nearly relevant firms in the same industry on the same date. The price/earnings ratio is also the rate by which earnings of the firm being evaluated should be capitalized.

The Securities and Exchange Commission experience is useful in determining how value is determined, but it yields little or no quantitative guidance. The Commission accepted a range of rates of capitalization of more than 26 to less than 2.4 (Based on rates of return of 3.8% to 42%) in the more than 1,000 cases studied by Professor Bosland.³⁴ No significant explanation is made of the difference except where based on actual markets or price/earnings ratios of similar companies. In most cases, majority and minority interests were evaluated on a pro rata basis (i.e., no addition was made for having effective control and no subtraction for the absence of such control), no distinction was made for size of company or industry and excess assets were not usually treated separately.

The history of S.E.C. philosophy and experience shows a rejection of formulas and quantification, and the use of judgment in determining both earnings and the appropriate rate of capitalization.

Some Recent Ohio Case Law on Market Value

Ohio, in common with some other jurisdictions, measures damages in business losses on the basis of a comparison of before and after value of

³⁴ As for example the ten year record of earnings urged in *Taylor v. B. Heller & Co.*, 364 F.2d 608 (6th Cir. 1966); *Lloyd v. Lloyd Bros. Pharmacists, Inc.*, 29 Ohio L. Abs. 225, (C.P. Ham. Co. 1939).

the business.³⁵ Value of the business may be capitalization of past profits,³⁶ or may be based on *future* lost profits provided plaintiff "makes it reasonably certain by competent proof what the amount of his loss actually is."³⁷ Future profits must be used with care or they may not be accepted.³⁸

What historical record of earnings establishes earning capacity? In Ohio law there is an exact formula which uses a weighted average. Take net earnings for each of the ten years preceding the wrongful act: Weight the nearest year 10, the second year 9, etc. and compute the weighted average.³⁹ This extraordinarily detailed and exact formula seems unfortunate to the author, but it does make clear the increasing importance of historical data as it approaches the measurement date. In the present U.S. economy there is no such thing as a regular ten year "complete business cycle," and this standard should be replaced by expert opinion on the appropriate period, buttressed by data on the industry and the economy.⁴⁰

In contrast to the exact formula for measuring earnings, the rate by which earnings are capitalized permits wide discretion to the jury under proper instructions concerning tangible and intangible property.⁴¹ A comparison of earnings rates is made with prevailing rates of return on similar enterprises.⁴² This permits the reasonable flexibility necessary in an economy where rates of profit vary significantly, and permits the desirable discretion to expert opinion apparently denied in the definition of earnings.

*The Whole View of Market Price*⁴³

The whole view of market price may be best explained by the concept of a "going business." A going business is different from and more than

³⁵ Taylor v. B. Heller & Co., 364 F.2d 608 (6th Cir. 1966).

³⁶ Bishop v. East Ohio Gas Co., 41 Ohio L. Abs. 353 (Ct. App. 1943).

³⁷ 16 O. Jur. 2d Damages § 80 (1955). See also Myers v. Sunlight Laundry Co., 10 O. App. 275 (Ct. App. Ham. Co. 1918), and Hinde and D. Paper Co. v. Wainwright Coal Co., 19 Ohio Dec. 139 (Super. Ct. 1908); Fremont Oil Co. v. Marathon Oil Co., 26 Ohio Op. 2d 109 (C.P. Sand. Co.), 192 N.E.2d 123 (1963).

³⁸ Zimmerman v. Isaly Dairy Co., 165 Ohio St. 354, 135 N.E.2d 338 (1956); Taylor v. B. Heller and Co., 364 F.2d 608 (1966).

³⁹ Ten years is referred to as "a complete business cycle." Lloyd v. Lloyd Bros. Pharmacists, Inc., 29 Ohio L. Abs. 225 (C.P. Ham. Co. 1939).

⁴⁰ Since economists do not recognize a ten year cycle of profits, the ten years standard becomes quite arbitrary. In addition, it is so long that it makes probable rather basic changes in management, production functions or in the nature of input and output markets. A preferable standard would be based on expert opinion after the expert has studied the significant variables. The relation of these variables to the period chosen should be explained to the jury. This would of course permit different time periods in different cases.

⁴¹ Bishop v. East Ohio Gas Co., 41 Ohio L. Abs. 353, 370 (Ct. App. 1943), "[w]here a business to be capitalized consists wholly of intangible property . . . the rate of return should be fixed at a higher percentage than where . . . [it] consists wholly or partly of tangible property."

⁴² *Id.*

⁴³ An excellent short treatment of the economic nature of market price is available in A. DEWING, *THE FINANCIAL POLICY OF CORPORATIONS* chs. 10-12 (5th Ed. 1953) [hereinafter cited as DEWING].

the sum of its tangible and intangible assets. These assets are "partials" which are necessary but insufficient to complete the whole. Usefulness⁴⁴ (utility) and scarcity⁴⁵ are also "partials," and may be appraised by formulas for partials.⁴⁶ But a going business

is a unity of men and property dedicated to the specific purpose of performing an economic service at a profit. This unity persists as the human beings who operate it come and go, as the material goods are made and sold, and as its fixed properties and machines decay and are replaced by new.⁴⁷

Appraisal of a going business should consider the partials, but its major consideration should be the effectiveness of the whole in obtaining money profits.

The difference between the value of a going business and the sum of its tangible and intangible assets is *organization* of men and property in the quest for profit. It is based on the human ability to learn from experience, to motivate, and to govern. It is not "a parcel of boilers and vats, but the potentiality of growing rich, beyond the dreams of avarice."⁴⁸ It is best measured in the present by the prospects for future net earnings.⁴⁹

Capitalization of Earnings [Price-Earnings Ratio]

The primary purpose of a going business is to make net earnings or profit. Net earnings reflect the conditions of supply and cost, the conditions and characteristics of the market for output, and the skill and efficiency of production. They are the measure of accomplishment and ability of a business enterprise.

Net earnings reflect the past insofar as the past is significant to the present and future. They show the influence of the future insofar as the future affects the present. Thus the single item net profits, although instantaneous in time, expresses the market appraisal of forces over time.

Since the purpose of a going enterprise is to gain net earnings, the valuation of an enterprise must be related to earnings.^{50 51} There is no fully successful substitute, not in gross earnings, or lost markets, or changed

⁴⁴ MARSHALL, *supra* note 12, at 369.

⁴⁵ *Id.* at 370.

⁴⁶ Partial includes salvage value, real asset value and transferable portions in intangible values.

⁴⁷ DEWING, *supra* note 43, at 281.

⁴⁸ BOSWELL, J., LIFE OF DR. JOHNSON 380 (1791). Quoted from DEWING, *supra* note 43, at 286.

⁴⁹ "The use of book values . . . is generally condemned as unsound." *Ahlenius v. Bunn & Humphreys*, 358 Ill. 155, 169 (1934).

⁵⁰ Justice O. W. Holmes in *Galveston Ry Co. v. Texas*, 210 U.S. 217, 226 (1908), said "... the commercial value of property consists in the expectation of income from it. . . ."

⁵¹ Should annual capacity to earn be based on a single year? five years? There is no sure rule, except that it should be long enough to "... cover a sufficient period to show the settled condition of things. . . ." *Louisville and N. R. Co. v. Coulter*, 131 F. 282, 304 (1903).

costs. These are useful in valuation only where net earnings cannot be ascertained. (For example, in a comparison of before and after, where the firm no longer exists, or in the case of a new business).

At what multiple of net annual earnings should a going business be appraised? Corporations do not have a life limited by charter or law. It would be unreasonable to equate damages to a single year's lost net earnings. It would be equally unreasonable to multiply the annual loss by infinity or even 100. The annual impact of an act in year one is usually greater than in year two, in year two greater than year three, and so on. Why? Because in each subsequent year there is a rise of risk that the estimated net earnings may not be attained due to the passage of time (related to the pure interest rate), and to events that occur in the firm, the industry, and the economy. (Summarized by the "gross" interest rate).

How should a rate of capitalization be estimated? The rate depends on prevailing interest rates on date of evaluation (or trial), the nature of the firm and its management, the industry, and the national economy. The greater the risk the lower the multiple. The appropriate multiple depends on all the relevant facts and on their interpretation by the economist making the evaluation.

The professional opinion of the economist on the appropriate rate of capitalization depends on many variables, including the nature of the enterprise. Contrast the difference in reasonable rates of return, as interpreted by the money and capital markets in 1965 and in 1970. Contrast the difference between a public utility and an electronics firm with the Department of Defense as its sole or major customer. There may be cases of multiples as low as *one* (for a personal services firm after death of a sole proprietor) to above *100* (for a new issue of a favorite industry during a period of exuberance on the stock market). The multiple for all stocks in the Dow-Jones Industrial Index on August 21, 1970 was 13.7.⁵² The Securities and Exchange Commission accepted multiples of 8.33 to 11.5 in 1940.⁵³ The choice of a rate of capitalization is clearly a matter of professional judgment in the light of the circumstances.

Some Examples of Valuation: A. B. Momand v.

Universal Film Exchanges, Inc., et. al.

172 F.2d 37 (1st Cir. 1948)⁵⁴

Momand was brought under Section 7 of the Sherman Anti-Trust Act and Section 4 of the Clayton Act. The plaintiff, a realtor and theater operator, sought damages after the defendant had been found guilty of

⁵² Wall Street Journal, Aug. 24, 1970, at 21, col. —.

⁵³ Securities and Exchange Commission, Report re. Minn. and Ontario Paper Co. (Report No. 11640) at 12 (August 26, 1940).

⁵⁴ The full transcript of the record of the District Court (2,014 pages) was kindly loaned by Mr. Dana H. Gallup, Clerk, U.S. Court of Appeals, 1st Cir., Boston, Massachusetts.

monopolizing activity (in arbitration and credit policies) in a suit brought by the United States.

The plaintiff based proof of amount of damages on reductions in gross revenue⁵⁵ and on declines in profit.⁵⁶ The "before" year chosen was 1927, probably because that was prior to the first alleged wrongful act.⁵⁷ The theater owner testified on what revenue and profits would have been in the absence of the wrongful act.⁵⁸

Proof of amount of damages involved rather unsophisticated use of economic variables. The year 1927 was considered as a "standard year" for profits⁵⁹ in spite of the knowledge of the Great Depression. Adjustments for the Depression were made by evidence of the lower prices for crude oil⁶⁰ (1931-33), presumably thinking prices of a major industry should be related to prices and profits of motion picture theaters. A witness testified that the Depression reduced gross revenues and property values by 20 to 25%, but gave no detailed accounting.⁶¹ Comparisons were also made with gross income of two large motion picture distributing companies.⁶² The plaintiff relied for testimony on a former oil company auditor and on employees of the plaintiff. The testimony shows very little perception of important economic relationships, relying on masses of ill-digested data rather than professional analysis.

Attorneys for the plaintiff computed damages from the testimony by adding together the loss of receipts, the loss of equipment to foreclosure, and loss of future earning capacity of the business.^{63 64} Future earnings loss was computed as the sum of profits for three immediately preceding years or three times the earnings of the first preceding year.⁶⁵ Neither the summary or the data upon which it was allegedly based was contested by the defendants. At least one writer believes the summary involved double counting,⁶⁶ but whether the jury counted earnings twice is unclear, since the verdict shows no ascertainable relationship to the various items. Economic analysis can provide a better guide to appraisal of damages than was used in *Momand*.

⁵⁵ See Schedule A (Summary of Plaintiff's Assessment), at 217-220 Volume I.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.* at 605, Vol. II.

⁵⁹ *Id.* at 697-99.

⁶⁰ *Id.*

⁶¹ *Id.* at 685.

⁶² *Id.* at 1159-60, Vol. III.

⁶³ *Id.* at 1245.

⁶⁴ *Id.* at 655-6, Vol. II and at 1046, Vol. III.

⁶⁵ *Id.* at 633-6, Vol. II.

⁶⁶ Guilfoil, *Damage Determination in Private Anti-Trust Suits*, 42 NOTRE DAME LAW 647 (1967) [hereinafter cited as Guilfoil, *Damages*].

*Dean Foods v. Albrecht Dairy*⁶⁷
396 F.2d 37 (8th Cir. 1968)

Dean Foods was found to have violated a state anti-trust law (Missouri Unfair Milk Practices Act § 416.415) by illegal pricing practices. An expert witness for Albrecht, a Certified Public Accountant, computed loss as number of sales during the violation period multiplied by the difference in price before and after Dean's illegal acts. Changes in gross sales were used because Albrecht, a new company, had been operating at a loss up to the date of trial.

This case is significant, in part, because of its omissions. No claim was made for loss of percentage of market penetration, or even for loss of sales during the violation period. No adjustment was made on the cost side to reflect the relationships of changed cost to profit position. Even some usual cost items (milkmen's commission, bad debt) were omitted from the calculation.

There is a strong probability that the legal judgment did not fully and completely end the consequences of the wrongful act. The damages were for the period from entry into the market to the date of the court's judgement. But Dean Foods remained a seller in this market after the trial. Perhaps the legal judgement should have included an amount for long-term damage, computed as reasonably probable lost earnings multiplied by a reasonable and proper rate of capitalization.

*Selectomark Corporation*⁶⁸

Question: What is the reasonable market value for the Selectomark Corp.?

The expert dismissed book value as not controlling, as it represented a static and historical view only. He rejected a single actual sale value as not controlling because it was a sale of a small minority position to a majority stockholder who was also the managerial authority. The expert noted, but did not evaluate, the single patent of importance. Evaluation was based on general knowledge, including book, actual sale, and patent values but was based primarily on capitalization of earnings.

Earnings trends of the Selectomark Corporation were studied in an effort to evaluate the damages sustained. The last year showed net earnings of \$8,000. Price earnings ratios were studied in the economy generally and in most nearly comparable industries as of the date of the wrongful act. The ratios varied from 24 to 13 for the comparable industries, and 16 for companies included in the Dow Jones Industrial Index, 18 for those in Moodys, 23 for all stocks listed on the American

⁶⁷ The full transcript of the record of the Circuit Court (616 pages) was kindly supplied by Mr. Robert Tucker, Clerk, U. S. Court of Appeals, 8th Circuit, St. Louis, Missouri.

⁶⁸ This is an actual case with names and amounts altered. The author testified as the expert witness in this case.

Exchange, and a little over 12 for all U.S. corporations. Since Selectomark was unlisted and closely held, the expert decided on a price-earnings ratio of at least 10,⁶⁹ and therefore an uncorrected value of \$80,000 (10 x \$8,000). This preliminary figure was based on the "before and after" formula, using net profits as a criterion of value.

The simple application of the "before and after" formula and of net earnings does not take into account the possible distortion of earnings where the majority ownership and managerial powers are concentrated in the same hands. In *Selectomark* there appeared to the expert to be a payment of excessive and unreasonable salary income to an individual, which improperly reduced net earnings and therefore value based upon them. A detailed study was made of comparable labor markets for individuals of the same age, sex, race, education, training and experience. The amount by which actual salary exceeded a reasonable market value was called "excess salary," and the amount of the excess salary was added to net profits. With the new profits multiplied by 10 (as before) the appraisal of damages came to \$148,000.

The *Selectomark* appraisal shows the importance of expert economic testimony. It utilized the approved "before and after" formula and capitalization of net income; but it also made a *judgement* that net earnings had been misstated and was able to place a value on the corporation which was probably more nearly accurate.

Expert Testimony

Legal justice depends upon the sound discretion of judge or jury. This discretion should rest in part on the understanding which is available from appropriately chosen expert witnesses.⁷⁰ The expert witness technique has been called "the institutionalization of the function of transferring scientific knowledge to social use"⁷¹ and of course to the attainment of private justice.

The task of the expert witness is to supply factual information, relevant scientific relationships and his best professional opinion to assist the judge and jury.⁷² The expert should explain clearly what he did, why he did it, and its exact relationship to the value to which he testifies. Since the jury makes the judgement, the expert should emphasize in his testimony

⁶⁹ M. GORDON, INVESTMENT, FINANCING AND VALUATION OF A CORPORATION, 39 (1962) "The most widely recommended figure is the corporations price-earnings ration. . . ."

⁷⁰ H. OLECK, DAMAGES TO PERSONS AND PROPERTY Paragraph 966.2 (1961); Camden & A. R. Co. v. Williams, 61 N.J.L. 646, 40 A. 634 (1898).

⁷¹ Mesthene, *How Technology Will Shape the Future*, Science 11, (1968).

⁷² Expert testimony is particularly valuable in assessing such intangible factors as market forces. *Standard Oil Co. v. Moore*, 251 F.2d 188 (9th Cir. 1957) or the plaintiff firm's competitive standing in ability of management and acquired good will. *Bordonaro Brothers Theaters, Inc. v. Paramount Pictures, Inc.*, 176 F.2d 594 (2d Cir. 1949); *William Goldman Theaters, Inc. v. Loew's, Inc.*, 69 F. Supp. 103 (E.D. Pa. 1946).

those facts and relationships that form a part of his expertise, rather than just supplying a figure. This permits the jury to rely on expert knowledge where they are excluded by their lay knowledge and experience, and to use their own judgement where expert knowledge is not determining.

In cases in which the judge is confident of a means of computing damages, he may so instruct the jury. Often he is unsure, and so he leaves the jury to its own devices. When cases are very complex, both judge and jury may become confused as to the proper amount of damages. Some judges have been very frank about the difficulties. In *Reserve Plan, Inc. v. Arthur Murray, Inc.*⁷³ the judge wrote "[c]ertainly there should be a better method than having a judge, untrained and unassisted . . . sift the raw material . . . for the purpose of ascertaining plaintiff's damage. . . . [He refers to] [o]ur tedious and almost vexed attempt to decide the damage issue . . . , [and says elsewhere:] a judge simply is not trained to perform [such] duties. . . ."⁷⁴ The expert witness has special education and experience which makes him useful in many cases involving the amount of damages. The check on his opinion is the professional opinion of the expert on the other side. "The weight to be accorded evidence which is based upon estimates . . . depends upon an evaluation of the relative probabilities that one party's estimates will prove more accurate than the others."⁷⁵

An appropriately chosen expert economic witness will use all relevant data on damages, and try to reconstruct a free market. Since data are never complete, the reconstruction depends in part on his judgement as to what the free market would have been like had there been one. Sometimes this involves estimating net revenue by subtracting estimated expenses from estimated gross revenue.⁷⁶ Sometimes it involves future and increased profits.⁷⁷ Sometimes it depends on special studies or surveys.⁷⁸ In every case it involves an attempt to build a "mental construct" or image as near as possible to a free market. Of equal importance with adequate and accurate data on the firm is the careful analysis of industry-wide and economy-wide influences.⁷⁹ There is no adequate substitute for expert opinion based on the best data available.⁸⁰

⁷³ 38 F.R.D. 23, (W.D. Mo. 1965).

⁷⁴ *Id.* at 34.

⁷⁵ *A. C. Gecken Co. v. Gemex Corp.*, 199 F. Supp. 544, 553 (N.D. Ill. 1961), *aff'd* 314 F.2d 839 (7th Cir.), *cert. denied*, 375 U.S. 816 (1963).

⁷⁶ *Sablosky v. Paramount Film Distrib. Corp.*, 137 F. Supp. 929 (E.D. Pa. 1955).

⁷⁷ *William H. Rankin Co. v. Associated Bill Posters*, 42 F.2d 152 (2nd Cir.), *cert. denied*, 282 U.S. 864 (1930).

⁷⁸ *Kobe, Inc. v. Dempsey Pump Co.*, 198 F.2d 416, 427 (10th Cir. 1952).

⁷⁹ *Normand v. Thomas Theater Corp.*, 349 Mich. 50, 84 N.W.2d 451 (1957); *McWeeney v. New York, N.H. and H. R.R.*, 282 F.2d 34, 38 (2nd Cir. 1960); *Frey & Son v. Welch Grape Juice Co.*, 240 F. 114 (4th Cir. 1917), *cert. denied*, 251 U.S. 551 (1919).

⁸⁰ *Dewing*, *supra* note 43, at 379. "At best, as in the case of all economic values, human judgment is the ultimate criterion; but a human judgment which has surveyed the problem

A Provocative Confusion

A proper damage formula for destruction of a business is reasonable net earnings multiplied by a reasonable and proper rate of capitalization. Where damage less than destruction ceases on date of trial or order, a proper formula is based on lost net earnings. But what is a proper measure where damage continues in part after the judicial decision?

The case law is somewhat confused on damages only partially ended by the courts. The court in *Story Parchment Co. v. Paterson Parchment Paper Co.*⁸¹ provided two items for the jury to use: lost profits (the usual) plus the diminishment in the value of the petitioner's property. Dr. Guilfoil⁸² believes this amounts to double counting of lost profits, even though the Court did not use capitalized earnings as the measure of diminishment in the value of the property.⁸³ In *Kobe, Inc. v. Dempsey Pump Co.*,⁸⁴ the court used the usual means plus loss of sales position in the market. In *Atlas Building Products Co. v. Diamond Block and Gravel Co.*,⁸⁵ the court said damages should be based on "profit or net worth of . . . assets. . . ."⁸⁶ argued that the statute permits use of both profits and net worth, and then concluded that the size of the damages (very low) precludes serious injustice to the defendant. In *Union Carbide and Carbon Co. v. Nisley*,⁸⁷ the court said "[w]e know that loss of profits and diminishment of assets are proper elements of damage . . .,"⁸⁸ but on the confusion concerning double counting of profits said "all of these discrepancies, inconsistencies, and even incongruities were for the jury. . . ."⁸⁹ In *Volasco Products Co. v. Lloyd A. Fry Roofing Co.*,⁹⁰ the court did not use diminishment of value because evidence did not show it separately, and because plaintiff was fully compensated by lost profits and prevented by injunction from further losses.

A Proposal: The Full Value Theory of Damages

When a jury finds that a wrongful act has occurred, it also determines the money amount of compensatory damages. These damages should

from all angles and given due weight to the distinction between the factors which are of casual significance . . . and those underlying causes and influences which are abiding. The result is a figure. . . ."

⁸¹ 282 U.S. 555 (1931).

⁸² Guilfoil, *Damages*, *supra* note 66.

⁸³ The court used book value.

⁸⁴ 198 F.2d 416 (10th Cir. 1952).

⁸⁵ 269 F.2d 950 (10th Cir. 1959).

⁸⁶ *Id.* at 958.

⁸⁷ 300 F.2d 561 (10th Cir. 1961).

⁸⁸ *Id.* at 595.

⁸⁹ *Id.*

⁹⁰ 308 F.2d 383 (6th Cir. 1962).

place the plaintiff in the financial position he would have held in the absence of the wrongful act.⁹¹

The present legal method of compensation for business damages is to reimburse the plaintiff for his profits lost during the violation.⁹² To do this, some decision must be made on what profits would have been during this period. Courts, apparently taking the economy as generally static, often use a flat line extension of average net earnings from previous years (e.g., in Ohio a ten year weighted average).⁹³ Such an extension does not recognize that business earnings are generally rising over time.⁹⁴ An upward correction of earnings, where appropriate, should be made by an economic expert and is represented in Table No. 1 by line segment FJ, the continuation of the actual earnings line EF. This continuation is an approximation of net earnings of the business without unlawful interference. The actual earnings line, (EFG), is linked downward after the wrongful act and might continue downward until the date of the trial when the illegal act was stopped (at JG).

The present amount of damages is the difference between the averaged earnings extension (CD) and the downward sloping actual earnings line (CG),⁹⁵ represented by the area CDG. To replace all lost profits to date of trial (JG), it is necessary to use the area between the projected earnings line (FJ) and the actual earnings line (FG) represented by the area FGJ. The triangle FGJ shows the reasonably probable loss of profits due to the tort and measures the full compensation to date of trial (JG).

The courts' present theory often takes for granted that all losses to the business are temporary and are completely erased at the date of trial. If this is true, the plaintiff can be completely restored by a judgement the size of triangle FGJ. But suppose there is a continuing injury (such as reduction in percentage of market) caused by the illegal act? What if the actual net earnings do not rise to point J immediately after the date of the trial? If the actual net earning resume somewhere below point J then there has been some measurable continuing damage. A change in market penetration or some other continuing damage has occurred and the judgement should include the loss in value of the business.

The continuing loss in value can be shown by the difference between the projected net earnings JKK₂ and the projected actual after-injury-net earnings GHH₂. This may be a continuing loss which can never quite be regained (explains why the two projections never meet). The line GHH₂

⁹¹ *Wicker v. Hoppack*, 73 U.S. (6 Wall.) 94 (1867).

⁹² *Bigelow v. RKO Pictures, Inc.*, 150 F.2d 877, 884 (7th Cir. 1945). For discussions see *Guilfoil*, *Damages*, *supra* note 66; Comment, *Monetary Recovery Under Federal Antitrust Statutes*, 45 TEXAS L. REV. 856 (1967).

⁹³ *Lloyd v. Lloyd Bros. Pharmacists, Inc.*, 29 Ohio L. Abs. 225 (C.P. Ham. Co. 1939).

⁹⁴ *Bosland*, *supra* note 33; *Dewing*, *supra* note 43, at 376.

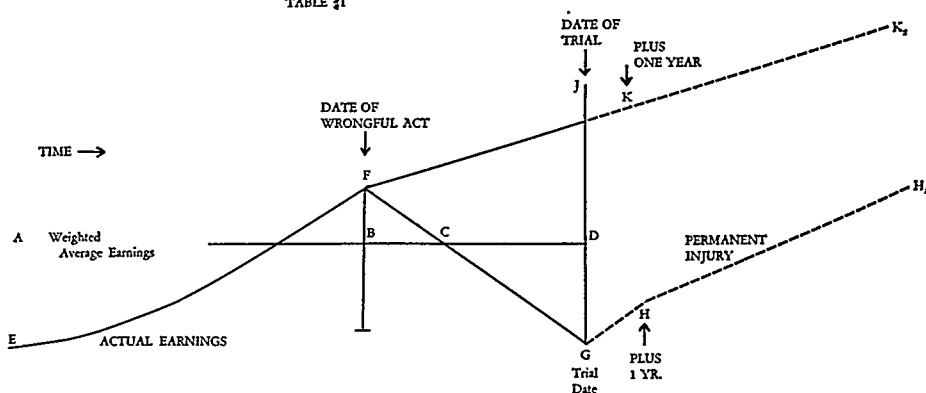
⁹⁵ *Lloyd v. Lloyd Bros. Pharmacists, Inc.*, 29 Ohio L. Abs. 225 (C.P. Ham. Co. 1939).

in the diagram is strictly a conjectural representation used to show possibly continuing damages.

The value of a going business is best determined by capitalizing net earnings with an appropriate rate of capitalization.⁹⁶ Damage resulting in the loss of value of a business should logically be determined in a like manner.⁹⁷ That part of the damage which causes a continuing impact on property rights should be capitalized rather than just accounted for like lost profits before the trial. This capitalized amount shows the value of the continuing loss and should be added (where appropriate) to the triangle of *lost profits* based on temporary damages (FGJ).⁹⁸

This "full value theory" requires an expert opinion and a judicial decision on amount of continuing damage. This is difficult, but without it the measure of compensatory damages is not met. No legal decision can fully reinstate "what would have been," but it can determine a money value for it.

TABLE 21



Present Legal Solution is: CDG

Full Value Solution is: FJG, where effect of injury ceases on Date of Trial

: FJG, plus *Annual* loss of profits in year subsequent to Date of Trial (JKHG), Multiplied by Appropriate Rate of Capitalization.

⁹⁶ DEWING, *supra* note 43, at 286, 287.

⁹⁷ Taylor v. B. Heller & Co., 364 F.2d 608, 612 (1966):

1. Measurement of damages [is] difference between value of the business before and after injury or destruction.
2. [T]he real relevance of past profits . . . is for computation of the value of the business as a going concern, through the capitalization of past earnings at an appropriate rate.

⁹⁸ The proper measure of continuing loss might be JKHG (loss first year after the trial) multiplied by an appropriate rate of capitalization.